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JOUVEA STRAMINEA FOURN.

Desmodium longifolium Nutt.; T. & G. Fl. N. A. l. c. as synonym.

MEIBOMIA PSILOPHYLLA WRIGHTII (A. Gray):

Desmodium Wrightii A. Gray, Bost. Journ. Nat. Hist. 6: 177. 1850.

Meibomia Wrightii Kuntze, Rev. Gen. Pl. 198. 1891.

This species is so close to *M. psilophylla* (Schlecht. Linnaea, 12: 310. 1838) as to scarcely even merit varietal rank. It is, however, variable, and the North American form seems to have somewhat broader leaves and slightly larger loment-joints.

DISTRIBUTION: Texas, New Mexico and Mexico.

M. psilophylla (Schlecht.) occurs in South Mexico.

MEIBOMIA ANGUSTIFOLIA (H. B. K.) Kuntze, Rev. Gen. Pl. 187 1891.

Hedysarum angustifolium H. B. K. Nov. Gen. 6: 517. 1823.

Desmodium angustifolium DC. Prodr. 2: 328. 1825.

Desmodium gramineum A. Gray, Pl. Wright. 2: 46. 1853.

Meibomia graminea Kuntze, Rev. Gen. Pl. 198. 1891.

Grass Notes.

BY F. LAMSON-SCRIBNER.

(PLATE 266.)

JOUVEA STRAMINEA Fourn.

In Vol. 17: No. 9, of the BULLETIN I figured and described a grass collected on the sandy seacoasts of Lower California by Dr. Palmer, referring it with a sign of doubt to *Jouvea straminea* Fourn. The genus *Jouvea* was based upon female plants alone; and, while the characters presented by Palmer's specimens, which include both male and female plants, accorded in the main with the description given by Fournier, there were some differences in the details, which gave a doubt to the identification. Fournier did not recognize the male plants which were in the same collection (Liebmann 479 and 480) that contained the specimens upon which the genus was founded. He mistook these, as others had done before him, for species of *Distichlis* and referred them to

Brizopyrum pungens (Rupr.), under which name they were distributed. Last year Dr. Palmer collected the same grass in the vicinity of Acapulco, which he discovered in 1890 on the seashore in Lower California, and also another species which proves to be the true *Jouvea straminea* of Fournier, as determined by a comparison with the type. What I believe to be the male plants of the same species were also found, and from material gathered it has been possible to certainly identify Fournier's species, to ascertain that the grass of Palmer's earlier collection represents a distinct species of the same genus and also to determine with reasonable certainty that the male plants of the latter are the *Brizopyrum pilosum* of Presl.

From a study of the material now in hand, it appears to me that Fournier and others have heretofore misunderstood the structure of the female inflorescence. What has been described as a terminal, cylindrical and acute spike appears to me to be a 2 to 4-flowered spikelet with a remarkably developed rachilla in which the florets are embedded, the whole simulating in some degree the spikes of *Monerma* or *Lepturus*. These spikelets are lateral, sessile and articulated with the main axis, from which they readily separate at maturity. They are subtended by and partly enclosed within the leaf-sheath, from whose axil they originate, and there is a strong and well developed prophyllon on the rachis of the spikelet, above which is the articulation. This position suggests that what we here term a spikelet may be only a modified branch (but spikelets of the more familiar type are in reality modified branches), and the articulation of this with its own axis and the peculiar structure of the female flowers does, I think, warrant the use of the designation here given. These spikelets are without empty glumes, unless the leaf subtending them be regarded as a glume. In the staminate spikelets also the empty glumes are often entirely wanting, although occasionally we find one, and more rarely two, present. The glume which covers the female flower, called "*gluma exterior*" by Fournier, is really a flowering glume with its edge grown firmly to the rachilla for about one-half its length in *Jouvea straminea*, the upper portion being free, but the edges so extended and grown together as to form a closed cavity, having a small aperture only at the apex, through which

the stigma protrudes. In *Jouvea pilosa* this glume is grown to the rachis or rachilla for nearly its entire length, the free portion being a short narrow tube as illustrated on page 228, Bull. Torr. Club, Vol. 17: and in *fig. n, pl. 106*. This glume is very firm and rigid, the texture of the dorsal portion being like that of the axis which bears it. It immediately subtends the pistil, which in *Jouvea pilosa* has no palea, but which in *Jouvea straminea* has a very delicate, hyaline, 2-keeled palea between it and the main axis. In many of the specimens examined there was above this palea a second pistil, imperfectly developed, enclosed within a sac of delicate texture, but otherwise formed like the sac which encloses the perfectly developed flower. This second and imperfectly formed pistil is raised above the other on a very short stalk, and the details of the structure here described are shown in *fig. e, pl. 266*. The presence and position of the second pistil in the cavity containing the female flower certainly suggests the idea that the organ here designated as a spikelet is really a branch bearing two or four 1 to 2-flowered female spikelets, which are subtended by and enclosed within a single glume, or entire and leafless blade-sheath.

JOUVEA STRAMINEA Fourn. Bull. Soc. Bot. Belg. 15: 475. Not Scribner. Liebmann, no. 738.

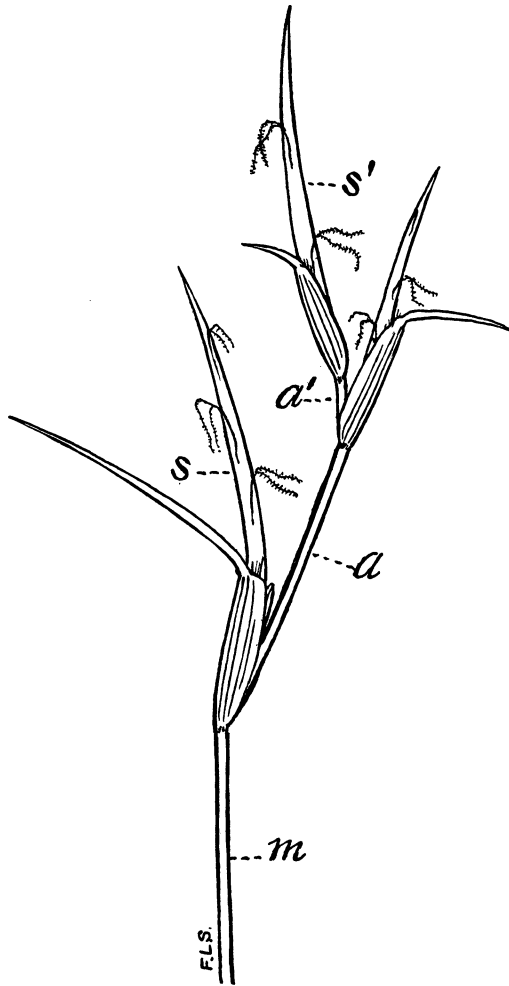
Found by Dr. Palmer (no. 443) in February, 1895, growing in large masses at the edge of a low damp place in a garden near the river bank at Acapulco. The plant produces long runners. There is a little uncertainty as to the staminate plants of the true *Jouvea straminea*. Dr. Palmer assures me, however, that the staminate specimens which he gathered were collected in the same locality as the female plants and were found growing with them. The staminate plants are more slender, with rather longer and less rigid leaves than those which are undoubtedly the male plants of *Jouvea pilosa*. There is little difference, however, to be noted between the spikelets of the two.

JOUVEA PILOSA n. n.

Jouvea straminea Scribn. not Fourn. *Rachidospermum Mexicanum* Vasey. Bot. Gaz. 15: 110. *Uniola pungens* Rupr. in Bull. Acad. Roy. Brux. 9: excluding the synonym. *Brizopyrum pilosum*

Presl, Rel. Haenk. 1: 280. Presl's species was founded upon the male plant. This species is represented in the National Herbarium as follows: Liebmann 480 (Santa Cruz) ♂; E. Palmer 124 (La Paz, 1890) ♂, ♀; Xantus 121 (Cape San Lucas) ♂; Brandeggee 42 (San José del Cabo, 1890) ♂, ♀; Palmer 1384 (Manzanillo, 1894) ♀; Liebmann 479 (St. Augustine, 1842) ♂.

Jouvea straminea Fourn. is readily distinguished from *Jouvea pilosa* by its more slender habit, less rigid leaves, less crowded in-



Upper part of the culm of *Jouvea straminea*. m, a, and a' the main axis
s, s', Lateral borne spikelets.

florescence, more slender and porportionately much longer spikelets. In *J. pilosa* the glumes are grown to the axis for almost their entire length, and there are no paleas or rudimentary pistils of a second flower within the floral cavities.

ANDROPOGON FLORIDANUS n. sp.

Culms smooth, stout, 4 to 6 feet high, or 2 to 3 feet high and more slender; sheaths scabrous, the lowermost slightly compressed, loose, and much exceeding the internodes, the upper shorter than the internodes and terete; ligule very short, ciliate, auricled; leaf-blade 10 to 24 inches long, 3 to 5 lines wide, scabrous beneath, minutely strigose-pubescent above, at least near the base, very acute. Panicle 12 to 30 inches long, very much branched, branches ascending. Racemes 1 to 2 inches long, slender, in 2's, rarely in 3's or 4's, finally exserted, peduncle bearded at the apex; rachis slender, 8-10 jointed, the joints shorter than the sessile spikelet, bearded, the hairs near the summit of each joint 3 lines long. Primary spikelet wanting, the pedicel exceeding the sessile spikelet in length, and bearded with hairs equalling those of the joints of the rachis. Sessile spikelet 2 lines long, lanceolate-acute, with a few short hairs on the callus; first glume bicarinate, smooth and somewhat depressed on the back and nerveless between the keels, which are minutely aculeolate-scabrous above, glabrous below; second glume boat-shaped, rather broadly lanceolate, very acute, 1-nerved, scabrous on the keel above, ciliate on the hyaline margins; third glume about as long as the second, lanceolate or oblong, hyaline, ciliate on the margins; the fourth or flowering glume lanceolate, about as long as the third, margins ciliate, terminating in a slender awn, which is 5 to 6 lines long; palea hyaline, about 1 line in length. Spathe about 2 to 3 inches long, narrow, and closely enveloping the slender peduncles of the finally exserted racemes. Awn slightly twisted near the base, the column included within the glumes.

A stout grass of the low pine barrens, with elongated leaves and rather narrow, elongated, much-branched panicle of silky-bearded racemes. G. V. Nash, 1572, August, 1894.

ANDROPOGON ELLIOTTII GLAUDESCENS n. var.

Glaucous throughout, less branched than in the species, and the somewhat stouter racemes more densely silky-bearded.

High pine lands in the vicinity of Eustis, Lake county, Fla., G. V. Nash, 473.

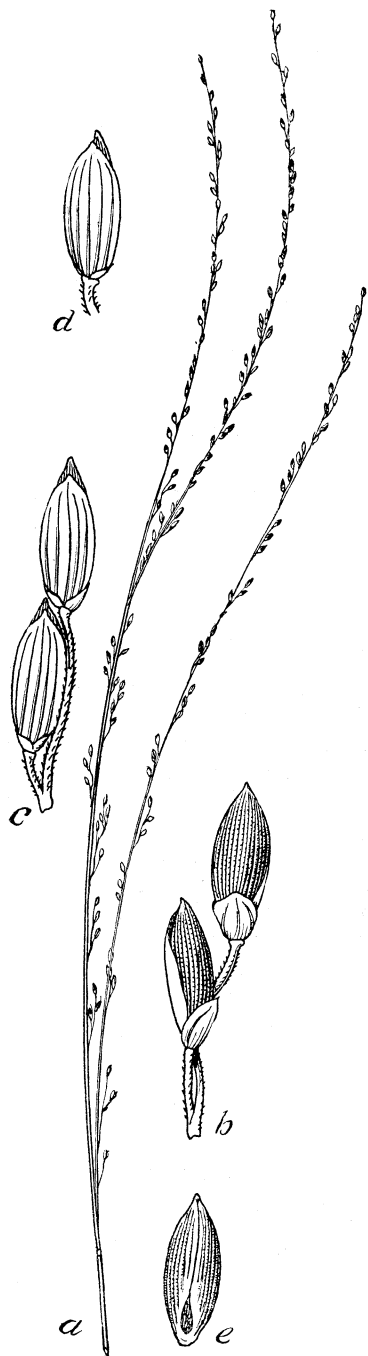
ANDROPOGON ELLIOTII LAXI-
FLORUS n. var.

Lower sheaths, especially those of the innovations, more or less densely clothed with fine soft hairs; culms densely silky-bearded just below the nodes; upper sheaths not approximate and inflated as in the species, but remote and close; racemes 2 to 3 inches long, the joints equalling or exceeding the spikelets.

Florida, Nash, no. 1738. 1894.

PANICUM (DIGITARIA) GRACILLIMUM
n. sp.

A slender perennial 2 to 3 feet high, with very narrow elongated leaves and small spikelets, racemose along the main axis and the slender branches. Culms smooth, with one or two joints near the base; sheaths very long, striate, silky-villous below, otherwise smooth; ligule membranous, 1 to 2 lines long, fimbriate, decurrent, pubescent on the back; leaf-blade 6 inches to a foot long or more, $1\frac{1}{2}$ lines wide, those of the intra-vaginal innovations much narrower, smooth beneath, long and rather densely pilose-hairy near the base above; otherwise minutely scabrous. Inflorescence 15 inches long, the raceme-like branches 7 to 9 inches, main axis, branches, and pedicels scabrous. Spikelets irregularly scattered along the branches and main axis, two to four together, on slender appressed pedicels which equal or exceed the spikelets in length; pedicels pubescent at the base. Spikelets 1 line long, oblong-lanceolate, acute; empty glumes, two, the first broadly obtuse, one-fourth as long as the spikelet, scari-



ous, 3-nerved, smooth, the second 5-to 7-nerved, a little shorter than the third glume, obtuse; third glume rigid, subcoriaceous, very dark-brown, finely striate and minutely apiculate, closely enveloping the palea, which is of similar texture.

Described from No. 1192 Nash, collected on high pine land in the vicinity of Eustis, Lake county, Florida, July, 1894.

Explanation of Plate 266.

Fig. a. A portion of the ♂ spikelet.

Fig. b. A single floret with a portion of the rachilla of the same.

Fig. c. A ♀ spikelet partly enclosed within the sheath of the subtending leaf.

Fig. d. Lower part of the female spikelet including one floret, the upper part of which is free from the rachilla (d').

Fig. e. A longitudinal section through a portion of d showing the base of the outside of the flowering glume (e'), the prophyllum (h) to the branch which supports the pistil and a glume (i) which encloses a second but imperfectly formed pistil. This is raised a little above the fully developed pistil, the plumose stigmas of which protrude from the small opening at the apex of the floret.

New or noteworthy American Grasses.—IV.

BY GEO. V. NASH.

Panicum consanguineum Kunth, Enum. Pl. 1: 106. 1833.

Panicum villosum Ell. Bot. S. C. & Ga. 1: 124. 1817. Not Lamarck, 1791.

Dr. John K. Small collected in Georgia, in 1895, a *Panicum* which well accords with the description given by Elliott of his *P. villosum*; in fact, it agrees so closely that I have little hesitation in referring it to that species, especially in view of the fact that it comes from a section of the country with the flora of which Mr. Elliott was familiar. Dr. Small secured the early and simple state of this grass in the Ocmulgee River swamp, below Macon, in May; the later and much-branched form was collected by him at Darien Junction, McIntosh county, in June.

The name *villosum* had been previously applied by Lamarck to an entirely different plant, so Elliott's name becomes a homonym. The oldest available name, so far as I have been able to ascertain, is the *P. consanguineum* of Kunth, who founded his species on the *P. villosum* of Elliott. A number of different forms have been referred from time to time by various authors to this species, but I